

Black Oxide

DPM 293

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health AdministrationForm Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Industrial Hygiene

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

AUG 01 1989

SECTION I

| | | |
|---|-------------------------------|---|
| MANUFACTURER'S NAME <u>Sherwin Incorporated</u> | | EMERGENCY TELEPHONE NO. <u>(213) 861-6324</u> |
| ADDRESS (Number, Street, City, State, and ZIP Code) <u>5530 Borwick Avenue, South Gate, CA 90280</u> | | |
| CHEMICAL NAME AND SYNONYMS <u>N/A</u> | | TRADE NAME AND SYNONYMS <u>Black Oxide No. 1</u> |
| CHEMICAL FAMILY <u>Primarily Fe₂O₃</u> | FORMULA <u>Proprietary</u> | |

SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS | % | TLV (Units) | ALLOYS AND METALLIC COATINGS | % | TLV (Units) |
|---|---------------|-------------|--|---|-------------|
| PIGMENTS <u>Iron Oxide</u> | <u>1-3%</u> | <u>N/A</u> | BASE METAL | | |
| CATALYST | | | ALLOYS | | |
| VEHICLE | | | METALLIC COATINGS | | |
| SOLVENTS <u>Aliphatic Solvent</u> | <u>97-99%</u> | | FILLER METAL PLUS COATING OR CORE FLUX | | |
| ADDITIVES | | | OTHERS | | |
| OTHERS | | | | | |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES | | | | % | TLV (Units) |
| (Spray can packaging would include fluorocarbon or hydrocarbon propellant. Fluorocarbon propellant - avoid open flames and welding arcs, as thermal decomposition can produce hydrogen chloride and phosgene. Hydrocarbon propellant is extremely flammable.) | | | | | |

SECTION III - PHYSICAL DATA

| | | | |
|-------------------------|------------------------|---------------------------------------|---------------|
| BOILING POINT (°F.) | <u>356-510 D. F.</u> | SPECIFIC GRAVITY (H ₂ O=1) | <u>0.8086</u> |
| VAPOR PRESSURE (mm Hg.) | <u>77 D. F. 1.0 mm</u> | PERCENT VOLATILE BY VOLUME (%) | <u>99%</u> |
| VAPOR DENSITY (AIR=1) | <u>6.2</u> | EVAPORATION RATE (_____=1) | <u>0.1</u> |
| SOLUBILITY IN WATER | <u>Nil</u> | | |
| APPEARANCE AND ODOR | <u>Water Color</u> | | |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | | |
|------------------------------------|---|------------------|-----------------|-----------------|
| FLASH POINT (Method used) | <u>TCC 154 D. F.</u> | FLAMMABLE LIMITS | <u>Lel 1.0%</u> | <u>Uel 7.0%</u> |
| EXTINGUISHING MEDIA | <u>CO₂ & Dry Chemical</u> | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | <u>In case of fire involving this material, do not enter the area without proper equipment, including self contained breathing apparatus.</u> | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | <u>Store spray can package out of direct rays of sun and under 120 F.</u> | | | |
| | <u>Do not heat, burn or puncture spray can at anytime.</u> | | | |

| SECTION V - HEALTH HAZARD DATA | |
|---|---|
| THRESHOLD LIMIT VALUE | 375 ppm (determined on basis of related hydrocarbons) |
| EFFECTS OF OVEREXPOSURE May cause eye irritation; may cause skin irritation on prolonged or repeated skin contact. May be harmful or fatal if swallowed. | |
| EMERGENCY AND FIRST AID PROCEDURES For eye contact, flush eyes with fresh water for at least 15 minutes; if irritation persists, get medical attention. For extensive skin contact, wash skin with soap and water. Remove grossly contaminated clothing and wash before reuse. If swallowed, do not induce vomiting- call a physician. | |

| SECTION VI - REACTIVITY DATA | | | |
|---|----------------|---|---------------------|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | X | |
| INCOMPATIBILITY (Materials to avoid) May react with strong oxidizing agents. | | | |
| HAZARDOUS DECOMPOSITION PRODUCTS Normal combustion forms carbon dioxide and water vapor. Incomplete combustion can form carbon monoxide. | | | |
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | | |

| SECTION VII - SPILL OR LEAK PROCEDURES | |
|--|--|
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Extinguish all sources of ignition in vicinity of spill or released vapors. Clean up spills as soon as possible, observing precautions in Section IX. | |
| WASTE DISPOSAL METHOD Absorb large spills with clay, diatomaceous earth. | |

| SECTION VIII - SPECIAL PROTECTION INFORMATION | | |
|--|----------------------|--|
| RESPIRATORY PROTECTION (Specify type) | | |
| VENTILATION | LOCAL EXHAUST | SPECIAL |
| | MECHANICAL (General) | OTHER |
| PROTECTIVE GLOVES Neoprene or protective gloves for repeated contact. | | EYE PROTECTION If possibility of splashing, wear chemical safety goggles. |
| OTHER PROTECTIVE EQUIPMENT | | |

| SECTION IX - SPECIAL PRECAUTIONS | |
|--|--|
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING. Avoid contact with eyes and skin. Avoid breathing high concentrations of vapors or mists. Store in cool, well ventilated area away from sources of ignition. | |
| OTHER PRECAUTIONS | |

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Sherwin Incorporated makes no warranty with respect thereto and disclaims all liability from reliance thereon.